

What is claimed is:

1. A method for use by a user equipment (UE) device (11) and Node Bs (10 10') of a wireless telecommunication system, the method for enabling Node B based control during soft handover of the maximum data rate allowed for uplink by the UE device (11) as indicated by a pointer (11a) in the UE device (11), the soft handover resulting in a change of a controlling Node B from a first one (10) of the Node Bs (10 10') to a second one (10') of the Node Bs (10 10'), each of the Node Bs (10 10') for providing commands for control of UE devices in at least one respective cell so that the UE device (11) in soft handover is simultaneously in at least two cells each possibly controlled by a different one of the Node Bs (10 10'), the method characterized by:

a step (22) in which the UE device (11) signals in uplink information indicating one of the cells as a scheduling cell;

a step (23) in which each Node B (10 10') receiving the uplink indicating one of the cells as the scheduling cell and able to provide scheduling commands determines whether it is in control of the scheduling cell, and issues scheduling commands for controlling the pointer (11a) in the UE device (11) if it is in control, but issues no such commands if it determines it is not in control of the scheduling cell.

2. The method of claim 1, further characterized by:

a step (24) in which the UE device (11) and also the Node B (10 10') in control of the scheduling cell each synchronize a respective pointer (11a 10a 10a') for indicating the maximum allowed uplink data rate for the UE device (11) to a value according to a synchronization procedure.

3. The method of claim 2, further characterized in that

according to the synchronization procedure, the Node B (10 10') sets the pointer (10a 10a') it maintains to the data rate used in the uplink of the information indicating the scheduling cell.

4. The method of claim 2, further characterized in that
5 according to the synchronization procedure, the Node B (10 10') sets the pointer (10a 10a') it maintains to a predetermined value.

5. The method of claim 2, further characterized in that
10 according to the synchronization procedure, both the Node B (10 10') and the UE device (11) set their respective pointers (10a 10a' 11a) according to predetermined criteria.

6. The method of claim 2, further characterized in that
15 according to the synchronization procedure, the Node B (10 10') sets the pointer (10a 10a') it maintains to a value it selects and explicitly signals the value to the UE device (11).

7. The method of claim 2, further characterized in that
20 according to the synchronization procedure, the Node B (10 10') sets the pointer (10a 10a') it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

8. The method of claim 1, wherein the Node B based control is provided using differential signaling.

9. The method of claim 1, wherein the Node B based control is provided using explicit signaling.

25 10. A UE device (11), comprising:

means for wirelessly communicating with Node Bs of a radio access network in a wireless communication system;

a pointer (11a) for indicating a maximum allowed rate of uplink to the wireless communication system; and

means for adjusting the pointer responsive to scheduling commands received from a Node B (10 10') controlling a cell in which the UE device (11) is located;

the UE device (11) characterized in that it comprises:

means for uplinking information indicating as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover, each cell possibly controlled by a different Node B (10 10').

11. A UE device (11) as in claim 10, further characterized in that the UE device (11) comprises:

means for selecting as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover.

12. A UE device (11) as in claim 10, further characterized in that the UE device (11) comprises:

means for determining whether scheduling commands are sent by the Node B controlling the scheduling cell and for disregarding all scheduling commands sent by other than the Node B controlling the scheduling cell.

13. A UE device (11) as in claim 10, further characterized in that the UE device (11) further comprises:

means for synchronizing the pointer (11a) to a corresponding pointer (10a) in the Node B (10) controlling the scheduling cell.

14. A UE device (11) as in claim 13, further characterized in that for synchronization, the UE device (11) sets the pointer (11a) it maintains to the data rate used in the uplink of the

information indicating the scheduling cell.

15. A UE device (11) as in claim 13, further characterized in that for synchronization, the UE device (11) sets the pointer (11a) it maintains to a predetermined value.

5 16. A UE device (11) as in claim 13, further characterized in that for synchronization, the UE device (11) sets the pointer (11a) it maintains according to predetermined criteria.

10 17. A UE device (11) as in claim 13, further characterized in that for synchronization, the UE device (11) sets the pointer (11a) it maintains to a value explicitly signalled by the Node B (10 10').

15 18. A UE device (11) as in claim 13, further characterized in that for synchronization, the UE device (11) sets the pointer (11a) it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

20 19. A Node B (10 10') comprising means for wirelessly communicating with a user equipment (UE) device (11) as an element of a radio access network of a wireless communication system, characterized in that it comprises:

25 means for determining when to assume control of scheduling of the UE device (11) and when to cease control of scheduling of the UE device (11) based on information uplinked by the UE device (11) indicating as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover.

20. The Node B (10 10') of claim 19, further comprising a pointer (10a 10a') indicating a maximum allowed rate of uplink by the UE device (11), and further characterized in that it

comprises:

means (24) by which the Node B (10 10') synchronizes to the pointer (11a) in the UE device (11) a pointer (10a 10a') it maintains for indicating the maximum allowed uplink data rate for the UE device (11).

21. The Node B (10 10') of claim 20, further characterized in that for synchronization, the Node B (10 10') sets the pointer (10a 10a') it maintains to the data rate used in the uplink of the information indicating the scheduling cell.

22. The Node B (10 10') of claim 20, further characterized in that for synchronization, the Node B (10 10') sets the pointer (10a 10a') it maintains to a predetermined value.

23. The Node B (10 10') of claim 20, further characterized in that for synchronization, the Node B (10 10') sets its pointer (10a 10a') according to predetermined criteria.

24. The Node B (10 10') of claim 20, further characterized in that for synchronization, the Node B (10 10') sets the pointer (10a 10a') it maintains to a value it selects and explicitly signals the value to the UE device (11).

25. The Node B (10 10') of claim 20, further characterized in that for synchronization, the Node B (10 10') sets the pointer (10a 10a') it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

26. A system, comprising a plurality of UE devices (11) and a plurality of Node Bs (10 10'), characterized in that the UE device (11) is as recited in claim 10.

27. A system, comprising a plurality of UE devices (11) and a

plurality of Node Bs (10 10'), characterized in that at least two of the Node Bs (10 10') are as recited in claim 19.

28. A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a UE device (11), with said computer program code characterized in that it includes instructions for executing the steps recited in claim 1 as executed by a UE device (11).

29. A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a Node B (10 10'), with said computer program code characterized in that it includes instructions for executing the steps recited in claim 1 as executed by a Node B (10 10').